

Application No.: 09/690600

Case No.: 53434US009

Remarks

Claims 1 to 23 are pending. Claims 1 to 15 and 20 to 23 have been withdrawn from consideration. Claim 16 has been amended.

Support for the amendment to claim 16 can be found at, e.g., page 11, lines 4-10.

Traversal of Finality of the Office Action

Before a final rejection is in order a clear issue should be developed between the examiner and applicant. The following actions tend to defeat attaining this goal: (1) switching from one subject matter to another in the claims presented by applicant in successive amendments; and (2) switching from one set of references to another by the examiner in rejecting in successive actions claims of substantially the same subject matter. (See, MPEP § 706.07.)

As a basis for making Paper No. 12 FINAL, the Patent Office asserted that applicants' amendment to claim 16, changing "circuit substrate" to "integrated circuit chip," raised new issues that would require further consideration and/or search. (See Paper No. 12, paragraph 4.)

Applicants respectfully traverse.

Applicants submit that the amendment to claim 16 was made in response a rejection under 35 USC § 112, paragraph 2. The Patent Office noted that the limitation "the circuit substrate" had no antecedent basis. (See, Paper No. 10, paragraph 4.) Applicants respectfully submit that this amendment did not change the subject matter of the claims. First, the phrase "integrated circuit chip" was present in the preamble of claim 16 as originally presented. Second, the phrase "integrated circuit chip" is used repeatedly in the Field of the Invention section of the application as filed. (See, page 1, lines 4-13.) Third, the amendment to claim 16 was not used by Applicants to overcome the § 102 rejections presented in Paper No. 10. (See, Amendment Under 37 C.F.R. § 1.111, filed January 27, 2003, pages 4-5.) Finally, Akram et al. (U.S. Patent No. 5,956,605), which provided the basis for a § 102(b) rejection in the first office action, refers specifically to semiconductor chips. (See, e.g., Abstract, Field of the Invention (col. 1, lines 5-9) and Summary of the Invention (col. 3, line 11 – col. 5, line 45.)) Thus, there has been no change in the field or subject matter of the claims brought about by the Applicants.

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Applicants further submit that the Patent Office has switched from one set of references to another in rejecting in successive actions claims of substantially the same subject matter. In Paper No. 10, the Patent Office relied upon Hideshima et al. (U.S. Patent No. 5,143,865) and Akram et al. (U.S. Patent No. 5,956,605). (See, Paper No. 10, paragraph 6.) In the next action, i.e., Paper No. 12, the Patent Office relied upon Seipler (U.S. Patent No. 5,068,714). (See, paper No. 12, paragraph 2.) Thus, making the current Office Action final is contrary to the MPEP.

For at least these reasons, Applicants respectfully request reconsideration and removal of the finality of the rejection presented in Paper No. 12, and entry of the present amendment.

Alternatively, Applicants respectfully request entry of the present amendment as an Amendment After Final Rejection. The amendment to the claims raises no new issues that would require further consideration, no additional claims are presented, and no issues of new matter are raised as basis is provided in the specification for the new limitation. The amendment places the application in better form for appeal. The amendment was not earlier presented because it is believed that previously presented arguments were sufficient to overcome the previously presented grounds of rejection.

In either case, entry of the amendment should place the application in condition for allowance.

§ 102 Rejections

Claims 16-19 stand rejected under 35 USC § 102(b) as purportedly being anticipated by Seipler (U.S. 5,068,714).

The present invention provides an integrated circuit chip having a passivation surface on which a plurality of conductive bumps are disposed. The bumps are selected from the group consisting of: solder, meltable solid metals, gold, electroless nickel, electroless gold, and combinations thereof. A layer of adhesive is provided on the bumped side of the integrated circuit chip. The adhesive has a primary surface that is substantially parallel to the passivation surface. The conductive bumps have exposed contact regions that are not covered by the adhesive. (See, e.g., claim 16, as amended.)

According to the Patent Office, Seipler describes an integrated circuit chip comprising: a bumped side having a passivation surface on which a plurality of conductive bumps (31') are disposed; a layer of adhesive (30) covered the bumped side of the integrated circuit chip, the

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adhesive layer (30) having a primary surface that is substantially parallel to the passivation surface, the conductive bumps (31') having exposed contact regions that are not covered by the adhesive (30), wherein the exposed contact regions of the conductive bumps have a rounded profile.

Applicants respectfully submit that features 31' of figure 4 in Seipler are not the conductive bumps of the present invention. Features 31' are an electrically conductive material, preferably in powder or pulverized form, which is added to the adhesive layer 30. (See, col. 6, line 63 – col. 7, line 2, emphasis added.) The addition of the electrically conductive material increases the volume of the adhesive, causing the adhesive itself to bulge outward. (See, col. 6, line 67 – col. 7, line 5, emphasis added.) Thus, the bulges of Seipler are not the bumps of the present invention, which are required to be selected from the group consisting of: solder, meltable solid metals, gold, electroless nickel, electroless gold, and combinations thereof. Therefore, Seipler does not describe all of the limitations of the present invention.

For at least these reasons, the rejection of claim 16 under 35 USC § 102(b) as purportedly being anticipated by Seipler has been overcome and should be withdrawn.

Claims 17-19 each add additional features to claim 16. Claim 16 is patentable for at least the reasons stated above. Thus, claims 17-19 are likewise patentable.

In summary, the rejection of claims 16-19 under 35 USC § 102(b) as purportedly being anticipated by Seipler is unwarranted and should be withdrawn.

In view of the above, it is submitted that the application is in condition for allowance. Reconsideration of the application is requested.

Allowance of claims 16-19, at an early date is solicited.

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Respectfully submitted,

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Date

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